June 2004

Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)

Project Status

Approved Date: 2003
Approved Funds: $2.2 M
Project Area: 538 acres
Total Est. Cost: $24.7 M
Net Benefit After 20 Years: 400 acres
Status: Engineering and Design
Project Type: Dredged Material/Marsh Creation

Location

The project is located adjacent to Bayou Dupont and southeast of Cheniere Traverse Bayou in the vicinity of Ironton in Plaquemines Parish and Lafitte in Jefferson Parish, Louisiana. The general area lies west of Louisiana Highway 23 and just north of the Myrtle Grove Marina within the Barataria Basin.

Problems

Marshes in the project area have degraded to open water with only scattered clumps of vegetation remaining. Marsh degradation has resulted from a combination of lack of natural fresh water and sediment input, subsidence, and the dredging of oil and gas canals.

Restoration Strategy

The proposed project involves dredging sediment from the Mississippi River for marsh creation and pumping it via pipeline into an area of open water and broken marsh west of the flood protection levee. The material will spread over the project area and be contained primarily with natural land features. Some low containment levees may be necessary in limited areas.

The proximity of the project to the Mississippi River presents a prime opportunity to employ a pipeline delivery system that will utilize the sediment resources from the river to restore and create wetlands. Unlike most marsh creation projects that involve borrowing fill material from adjacent shallow water areas within the landscape, this project will utilize river sediment, thus minimizing disruption of the adjacent water and marsh platform. The Bayou Dupont project represents the first example of pipeline transport of sediment from the river to build marsh as a CWPPRA project. Limited, but successful, experience has been gained by the U.S. Army Corps of Engineers through beneficial use of dredged materials. Results from this project should serve to demonstrate the value and efficacy of greater use of pipeline-conveyed river sediments for coastal restoration.

A determination will be made post-construction as to whether planted or natural colonization of native vegetation is best.

This project will help restore the highly degraded marshes of the area.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their January 2003 meeting.

The U.S. Environmental Protection Agency, working through the Louisiana Department of Natural Resources, is coordinating engineering and design of the project. While this work is ongoing, related technical workshops are being conducted to refine sediment transport and placement issues.

This project is on Priority Project List 12.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Baton Rouge, LA
(225) 389-0735

Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
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Delivery System*

Project Boundary

* denotes proposed feature

USGS science for a changing world

Louisiana

Project Location

N

0.25 0 0.25 0.5 Miles

0.25 0 0.25 0.5 Kilometers

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
Digital Orthophoto Quarter Quadrangle 1998

Map Date: December 23, 2003
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